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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,040	04/01/2004	Glen Garfunkel	HT03-027	9265
28112	7590	01/13/2010		
SAILE ACKERMAN LLC			EXAMINER	
28 DAVIS AVENUE			TUGBANG, ANTHONY D	
POUGHKEEPSIE, NY 12603				
		ART UNIT	PAPER NUMBER	
		3729		
		MAIL DATE	DELIVERY MODE	
		01/13/2010	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/816,040

Applicant(s)

GARFUNKEL, GLEN

Examiner

A. Dexter Tugbang

Art Unit

3729

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

The applicant(s) amendment (filed on August 31, 2009) has been fully considered and made of record.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamoto et al 5,936,810 in view of Ito et al 6,444,406.

Nakamoto discloses a method of forming a magnetically pinned layer (see alternative embodiments of either Fig. 2 or Fig. 12) comprising: providing a layer of antiferromagnetic material (16 in Fig. 2 or 21 in Fig. 12) having a central second that abuts a pair of opposing outer sections, the central section having a first top surface and the outer sections having second top surfaces; forming a layer of magnetic material (12 in Fig. 2 or 33 in Fig. 12), a part of which contacts only the second top surfaces, thereby forming the magnetically pinned layer (e.g. col. 12, lines 55-60), only a part of which is in contact with the layer of antiferromagnetic material.

Regarding Claim(s) 3, Nakamoto further teaches that the layer of magnetic material comprises a pair of ferromagnetic layers (22 and 24 in Fig. 2 or 11 and 13 in Fig. 22) separated by, and contacting, an antiferromagnetic coupling layer (16 in Fig. 2 or 21 in Fig. 12).

Nakamoto teaches substantially all of the limitations of the claimed manufacturing method except that the layer of magnetic material is forming by “depositing”.

However, in the art of manufacturing magnetic heads, it is well known to form a layer of magnetic material by deposition, i.e. a coating process, to provide a pattern for the layer of magnetic material. As evidence of obviousness, see Ito et al (e.g. 3, lines 3+).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the layer of magnetic material of Nakamoto by using a deposition process, as taught by Ito, to provide an accurate pattern for the layer of magnetic material.

Response to Arguments

The applicant(s) arguments (filed in the response of August 31, 2009) have been fully considered, but have not been deemed to be found as persuasive.

The applicant(s) assert that the prior art does not teach that a part of the layer of magnetic material contacts only the second top surfaces (lines 6-7 of Claim 1). The applicant(s) specifically point to Nakamoto's Figure 2 as not meeting these limitations.

The examiner most respectfully disagrees. In Nakamoto, Figure 2 was not the only embodiment that was relied upon in his disclosure, but Figure 12 was also relied upon. In Figure 12 of Nakamoto, it is clear that the layer of antiferromagnetic material (21) has a central section (below stack 13, 17, etc.) and a pair of opposing outer sections (outside of the stack) each having second top surfaces. The layer of magnetic material (33) that is formed by Nakamoto is in direct contact with these second top surfaces of the opposing outer sections of the layer of antiferromagnetic material.

But the examiner believes that Nakamoto's Figure 2 still meets the above limitations in question. Here, Nakamoto discloses a layer of antiferromagnetic material (16) and a layer of

magnetic material (12). But because the claim recites no other surfaces with respect to the outer sections, the sidewalls of the layer of antiferromagnetic material (16) can be read as second “top” surfaces of the outer sections.

In summary, the examiner’s position is that both of Nakamoto’s Figures 2 and 12 meet the above limitations regarding part of the layer of magnetic material contacting only the second top surfaces of the outer sections.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 8:15 am - 4:45 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/A. Dexter Tugbang/
Primary Examiner
Art Unit 3729**

January 11, 2010